

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 2)

FOIL the expressions shown below:

1. $(8x - 5)(-4x - 4)$

$$\begin{aligned} & (8)(-4)x^2 + (8)(-4)x + (-5)(-4)x + (-5)(-4) \\ & (-32)x^2 + (-32)x + (20)x + (20) \\ & -32x^2 - 12x + 20 \end{aligned}$$

2. $(5x - 8)(6x + 2)$

$$\begin{aligned} & (5)(6)x^2 + (5)(2)x + (-8)(6)x + (-8)(2) \\ & (30)x^2 + (10)x + (-48)x + (-16) \\ & 30x^2 - 38x - 16 \end{aligned}$$

3. $(9x + 9)(-7x - 8)$

$$\begin{aligned} & (9)(-7)x^2 + (9)(-8)x + (9)(-7)x + (9)(-8) \\ & (-63)x^2 + (-72)x + (-63)x + (-72) \\ & -63x^2 - 135x - 72 \end{aligned}$$

4. $(9x + 2)(-4x - 9)$

$$\begin{aligned} & (9)(-4)x^2 + (9)(-9)x + (2)(-4)x + (2)(-9) \\ & (-36)x^2 + (-81)x + (-8)x + (-18) \\ & -36x^2 - 89x - 18 \end{aligned}$$

5. $(6x + 9)(-2x + 7)$

$$\begin{aligned} & (6)(-2)x^2 + (6)(7)x + (9)(-2)x + (9)(7) \\ & (-12)x^2 + (42)x + (-18)x + (63) \\ & -12x^2 + 24x + 63 \end{aligned}$$

FOIL the expressions shown below:

6. $(-2x + 6)(6x - 3)$

$$\begin{aligned} &(-2)(6)x^2 + (-2)(-3)x + (6)(6)x + (6)(-3) \\ &(-12)x^2 + (6)x + (36)x + (-18) \\ &-12x^2 + 42x - 18 \end{aligned}$$

7. $(-8x - 7)(-7x - 6)$

$$\begin{aligned} &(-8)(-7)x^2 + (-8)(-6)x + (-7)(-7)x + (-7)(-6) \\ &(56)x^2 + (48)x + (49)x + (42) \\ &56x^2 + 97x + 42 \end{aligned}$$

8. $(8x - 9)(-8x + 6)$

$$\begin{aligned} &(8)(-8)x^2 + (8)(6)x + (-9)(-8)x + (-9)(6) \\ &(-64)x^2 + (48)x + (72)x + (-54) \\ &-64x^2 + 120x - 54 \end{aligned}$$

9. $(-5x - 8)(-5x + 5)$

$$\begin{aligned} &(-5)(-5)x^2 + (-5)(5)x + (-8)(-5)x + (-8)(5) \\ &(25)x^2 + (-25)x + (40)x + (-40) \\ &25x^2 + 15x - 40 \end{aligned}$$

10. $(8x - 6)(-4x + 5)$

$$\begin{aligned} &(8)(-4)x^2 + (8)(5)x + (-6)(-4)x + (-6)(5) \\ &(-32)x^2 + (40)x + (24)x + (-30) \\ &-32x^2 + 64x - 30 \end{aligned}$$